

Exhibit 12



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September 21, 2020

VIA ELECTRONIC MAIL

Brian M. Seeve, Esq.
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Re: *Singular Computing LLC v. Google LLC*, 1:19-cv-12551-FDS (D. Mass.)

Dear Brian:

I write in response to your September 16th letter regarding deficiencies in Singular's infringement contentions and related document production.

First, notwithstanding the "color-coded annotations" referenced in your letter, Google reiterates that Singular's infringement contentions fail to identify specifically where and how the claim limitations appear in the accused products, as required by the local rules.

With respect to the first limitation of Claim 7, for example, Singular annotated a block of text, highlighting and underlining in red various phrases from a Google graphic without explanation. Singular underlined, for example, the phrase "The MXU implements matrix multiplications in hardware using a so-called 'systolic array' architecture in which data elements flow through an array of hardware computation units." Ex. A at 7. But Singular failed to demonstrate how this underlined statement tracks the limitation—*i.e.*, whether this statement corresponds to (1) "one first low precision high-dynamic range (LPHDR) execution unit," (2) "a first input signal representing a first numerical value," or (3) "a first output signal representing a second numerical value."

Similarly, with respect to the third limitation of Claim 7, Singular annotated in red several phrases, including: "The Vector Processing Unit." *Id.* at 10. Again, Singular failed to indicate which part of the claim limitation corresponds to the annotated text—*i.e.*, whether the VPU represents "a central processing unit (CPU), a graphics processing unit (GPU), a field programmable gate array (FPGA), a microcode-based processor, a hardware sequencer, [or] a state machine." *See id.* at 11. Despite our request that Singular clarify this point, your letter

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confirmed only that Singular alleges the VPU satisfies this limitation in some way. This does not suffice; Singular must identify which of the limitation's list of claimed devices it alleges the VPU qualifies as.

In short, granting that Singular may cite to Google images and text in connection with disclosing its infringement theories, it must at minimum identify how the reproduced content allegedly aligns with the relevant limitation—for example, by using different colors to distinguish among the limitation's various aspects.

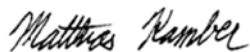
Please confirm that Singular will amend its infringement contentions to this effect by September 25th.

Second, as we explained in our September 11th letter and during our meet and confer, the scheduling order required Singular to produce documents supporting its infringement theories, including documentation of the test referenced in Singular's contentions. *See* Ex. A at 9; Ex. B at 9; Ex. C at 19, 28. Given your representations about the magnitude of data underlying this test, Google is amenable to Singular's producing an electronic, non-compiled version of the code used to conduct the test(s) as well as any compilations of statistics summarizing the test(s). Google reserves the right to seek production of Singular's data following review of the code.

Please confirm that Singular will provide this documentation by September 25th.

Third, your letter neglected to address whether Singular plans to assert claims beyond those included in its infringement contentions, either during the parties' meet and confer or in your letter. Please therefore confirm that Singular will neither (a) re-assert the claims originally asserted in its amended complaint, nor (b) assert additional claims beyond those identified in the infringement contentions.

Sincerely,

A handwritten signature in cursive script that reads "Matthias Kamber".

Matthias A. Kamber